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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------|
| 10/647,598 | 08/25/2003 | S. Brandon Keller | 100111236-1 | 2412 |
| 22879 | 7590 | 06/13/2005 | EXAMINER WHITMORE, STACY | |
| HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400 | | | ART UNIT 2825 | PAPER NUMBER |

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,598

Applicant(s)

KELLER ET AL.

Examiner

Stacy A. Whitmore

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: 1/20/05, 2/6/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 5-6, 11, and 17-18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothman (US Pre-grant Patent Publication No. 2005/00227954) in view of Takeyama (US Patent 6,618,834).

2. As for claims 1, 5-6, 11, and 17-18, and 22, Rothman discloses the invention substantially as claimed, including method, system means for, and software product comprising instructions for:

a manager for detecting access to memory/ determining if loading information into memory would exceed a predefined maximum, unloading one or more blocks of information to load the information needed to go into memory, or just loading the information into memory if the predefined maximum usage of memory is not exceeded []; a storage unit for storing information [fig. 2, abstract, pg. 6, paragraph 0069, claim 1];

Rothman does not specifically disclose that the information is blocks of information to be used for a circuit design model.

Takeyama discloses information to be used for a circuit design model and further the optimization of memory for use with a circuit design model [col. 1, lines 63-67; col. 4, lines 1-18; col. 8, lines 18-33].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Rothman and Takeyama because utilizing Rothman's memory management system within Takeyama's circuit design system would have provided Takeyama with known memory management techniques that would optimize memory usage and streamline the design process [see Takeyama, col. 1, lines 63-67; col. 4, lines 1-18; col. 8, lines 18-33].

3. Claims 2-4, 7-10, 12-16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rothman (US Pre-grant Patent Publication No. 2005/00227954) in view of Takeyama (US Patent 6,618,834), and further in view of Berliner (US Patent 6,256,711).

4. As for claims 2-4, 7-10, 12-16, and 19-21, Rothman in view of Takeyama discloses the invention substantially as claimed, including the method, system, computer instructions, and means for analyzing a circuit design with a predefined maximum utilization of computer memory as cited above in the rejection of claims 1, 5-6, 11, and 17-18, and 22.

As for claims 2-4, 7-10, 12-16, and 19-2, Rothman in view of Takeyama does not specifically disclose recording to/ updating a block access table record for updating, loading, and unloading of the circuit design information (block information, or utilizing LRU, or LFU caching technique for determining which block information to load and unload.

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Berliner discloses utilizing a block access table, and LRU and LFU techniques for loading and unloading and determining what information to load and unload [fig. 2, col. 4, lines 23-50].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Rothman in view of Takeyama and Berliner because utilizing Berliner's block access table and LRU and LFU caching techniques and memory management system within Rothman in view of Takeyama's circuit design system would have provided Rothman in view of Takeyama's with known memory management techniques that would optimize memory usage and streamline the design process [see Berliner, fig. 2, col. 4, lines 23-50].

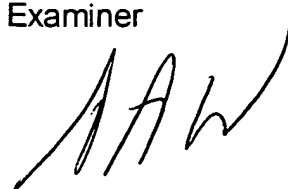
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore

Primary Examiner

A handwritten signature in black ink, appearing to read 'SAW', is written over the printed name and title of the examiner.

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SAW

June 7, 2005